March-10-14 8:25:38 AM

Required Date: 3/24/14

Item ID:

D3391-025

Accept

\*N900040100\*

Setup Start

**Revision ID:** Item Name: **Start Date:** 

3/10/14

QC:

Start Qty: 1.00 Req'd Qty: 1.00

**Cust Item ID:** 

**Customer:** 

Reference:

Approvals:

Process Plan: MUJ

Aft Tube Assembly

Date: 14-03-10 Tooling:

SPC (Y/N):

Date:

Date:

Run

Stop

Sequence ID/ Work Center ID Operation Description Set Up/

**Run Hours** 

**Tool ID** 

Tool # Plan Code

Accept Qty

Reject **Qty** 

Reject Number

Insp. Stamp

Draw Nbr

**Revision Nbr** 

D3391

100

\*100\*

MORI SEIKI CNC LATHE LARGE

Mori Seiki

Memo

0.00

Mori Seiki CNC Lathe Large

Turn as per Folio FA599

Date:

Rev: # & Dwg D3391 Rev: \_\_\_\_\_

0.00

110

QC2- Inspect parts off machine FAI/FAIB

0.00

\*110\*

QC

Memo

0.00

Quality Control

112

QC5- Inspect part completeness to step on W/O

0.00

\*110\*

QC

Memo

0.00

Quality Control

**POSITIVE RECALL** 

EFFECTIVE 14/4/14 AUTH U See ENG for orientation for CNC

DQA:	A 31	WA SA	Date: ) Date:	7	7	WORK ORDER NON	-C(	ONFO	RMANCE / UP		ork Order up	odate only	DART
Work Orde	-		453			<b>DISPOSITION</b> Rework			Skid-tube	AGAINST DE		/PROCESS  Water Jet	Engineering
		D3 14-			5	Scrap Use-as-is Suspected Unapproved			Machining noforming Large Fab	Small Fab Finishing Composite	Pro	d. Eng. Coor. re/Packaging Supplier	Quality Other
Root Cause		Date	Step	Qty	Desci	iption of work order update or non-conformance	ı	nitial ief Eng	Actic Descrip		Sign & Date	Verification	QC Inspector
Design Doc/Data Equip/Tooling Handling/Pre Material Operator Offset/Setup Process Supplier Training Transport Unapproved	<u> </u>	4102)10	100	Ŧ	by o has t between RC S coerectly tishta Vo in validat	"BORE IS off center.  030" to 0.050" And  Le wall thickness verying  1 0.020" to 0.040"  HEADY Rest want Set up  1. hocks were not  1. opnote them.  Process check list to  2. oct up werety.  mell 2 0.098"	11 9- 14		DRIENT SD 15 up 1c. o bend. Acceptable, no create a in f up sheck she to Prove/valid	on side of	NA	SL 14-10-21 Jul	DAS 16 9-89 1403/10
							FAI	JLT CA	TEGORY		<u>, , , , , , , , , , , , , , , , , , , </u>		
Landin	Bending Bend Bend BOM/Route Centre Not Concentric Broken/Damage/Defect Cracks Broken/Damage/Defect Crimp/Kink/Ripple/Wave Burrs Cuffs Contamination Crushing Countersink Heat Treat Cut Too Short Inspection Strip in Tube Drawing Marks/Chatter Drill Holes Turning Sequence Finish Wave/Twist in Tube Fit/Function					Grain Hardwa Inspect Instruct Misalia Mislaba Misread Off-set	ion Incomplete/Unq ions Incomplete/Un ned/off center	· —	Outside Dim Over/Under Part Incorred Part Lost/Mi Part Moved Positioned W Power Loss/S	tolerance ct ssing Vrong Surge XCARU / No	Pressure/Forced Set-up Temperature/Cure Weld Wrong Stock Pulled Other		

#### · Work Order ID 114535 \*114535\*

March-10-14 8:25:38 AM

Required Date: 3/24/14

Item ID:

D3391-025

**Revision ID:** 

Item Name: Aft Tube Assembly

**Start Date:** 

3/10/14

Start Qty: 1.00 Req'd Qty: 1.00

\*1\*

Accept

\*N900040100\*

Setup Start

\*NS2\*

**Cust Item ID:** 

**Customer:** 

Tool ID

Reference:

**Approvals:** 

**Process Plan:** 

Date: Date:

**Tooling:** SPC (Y/N):

Set Up/

**Run Hours** 

Date:

Date:

Tool # Plan

Code

Run Start

Reject

Qty

Accept

Qty

Insp.

Stamp

Stop

Reject

Number

Sequence ID/ **Work Center ID** 

OC:

120

\*120\* HAAS 1

HAAS CNC vertical machine #1

Operation Description

HAAS CNC VERTICAL MACHINING #1

QC2- Inspect parts off machine FAI/FAIB

Memo

0.00

1-Machine as per Folio FA 599 Rev: 1-Machine as per Fa 590 Rev:

130

\*130\*

 $QC_{\mu k}$ Quality Control

Memo

140

QC8- Inspect parts - second check

0.00

QC

Quality Control

Memo

0.00

\*\*\*INSPECT INSIDE BORE\*\*\*

JL14-10-21

DQA:	(24) ASU	Date:	15/6		WORK ORDER NO	N-C	ONFO	RMANCE / U		'ork Order u	odate only	<b>`</b> כּר	ART
Work Order:	1)	45	3=	5	DISPOSITION				AGAINST DE	PARTMENT	/PROCESS		ki ya da
Part No.	D:	339	1-0	-	Rework Scrap Use-as-is Suspected Unapproved	<u>Z</u>		Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite	-	Water Jet d. Eng. Coor. re/Packaging Supplier	ا د م	eering uality Other
Root Cause	Date	Step	Qty	Descr	iption of work order update or non-conformance		Initial hief Eng		tion ription	Sign & Date	Verificatio	n OC Ir	nspector
Design Doc/Data Equip/Tooling Handling/Pre Material Operator Offset/Setup Process Supplier Training Transport Unapproved	14/10/12	120	1	1,5	dim 1.526 are 80 on 2" long. ther end mill grat the st.	1 94	45 2 39 4/1/17	there is ve stress. BLEND S	s at fud hise where ery little	12 969 19 14 13	DOC	_	luli¢
Landing (	Gear				General							\$	
;	Bending Centre No Cracks Crimp/Kin Cuffs Crushing Heat Trea Inspection Marks/Ch Turning So Wave/Tw	t n Strip in atter equence	/Wave Tube		Bend BOM/Route Broken/Damage/Defect Burrs Contamination Countersink Cut Too Short Drawing Drill Holes Finish Fit/Function		Grain Hardwa Inspect Instruct Misalia Mislaba Misread Off-set Out of 0	ion Incomplete/Ur ions Incomplete/U ned/off center eled	· · · · · · · · · · · · · · · · · · ·	Outside Dim Over/Under Part Incorre Part Lost/M Part Moved Positioned V Power Loss/	tolerance ct ssing Vrong Surge	Rressure/Set-up Temperat Weld Wrong Sto	ture/Cure /

H:/FORMS/Quality Assurance\approved QA/NCRWO RevH

#### Work Order ID 114535

March-10-14 8:25:38 AM

Required Date: 3/24/14

\*114535\*

Altem ID:

D3391-025

Accept

\*N900040100\*

Setup Start

Stop

\*NS2\*

**Revision ID:** 

Aft Tube Assembly Item Name:

**Start Date:** 4, 3/10/14

Start Qty: 1.00 Req'd Qty: 1.00

Cust Item ID:

**Customer:** 

Reference:

**Approvals:** 

**Process Plan:** 

Date:

**Tooling:** 

Date:

QC:

Date:

SPC (Y/N):

Date:

Stop

Run

Sequence ID/ Work Center ID Operation Description Set Up/ **Run Hours** 

0.00

\*150\*

Skidtubes Skidtubes

Memo

0.00

Skidtubes

150

1-Drill (PILOT HOLE) aft cap holes per Dwg D3391 using DT8803

Tool ID Tool # Plan

Accept Qty

Reject Qty

Reject Number Stamp

Insp.

**3**2

Code

160

\*160\* CNC Bend I

BENDING MACHINE - SKIDTUBES

Memo

0.00

0.00

CNC Delta 100 Bender

Form as per Dwg D3391 Using Bend Prog 3391025

170

Quality Control

QC

QC5- Inspect part completeness to step on W/O

0.00

Memo

0.00

	4) A D I
QA Closed: Date: 14/12/16  WORK ORDER NON-CONFORMANCE / UPDATE  Work Order update only	AEROSPACE
Work Order: 114535 DISPOSITION AGAINST DEPARTMENT/PROCESS	
	ngineering Quality Other
Root Description of work order update Initial Action Sign &	
Cause         Date         Step         Qty         or non-conformance         Chief Eng         Description         Date         Verification         C	QC Inspector
Design Doc/Data Doc/Data Doc/Data Equip/Tooling XI Handling/Pre Material Operator Offset/Setup Process Supplier Training Transport Unapproved  Design  14.10.14  A.P. D3391-0.25 AFT TUBE ASSY AS A RESULT OF OF D3391-0.25 AFT TUBE ASSY ASSY AS A RESULT OF OF D3391-0.25 AFT TUBE ASSY AND D3391-0.25 AFT TUBE ASSY BY CHAPTSON IS THE WEAK POINT IN THE SMESS DIMPARITION PACHINED SUPPLIES  A.P. D3391-0.25 AFT TUBE ASSY BY CHAPTSON IS THE WEAK POINT IN THE SMESS DIMPARITION PACHINED SUPPLIES  A.P. D3391-0.25 AFT TUBE ASSY BY CHAPTSON IS THE WEAK POINT IN THE SMESS DIMPARITION PACHINED SUPPLIES  A.P. D3391-0.25 AFT TUBE ASSY BY CHAPTSON IS THE WEAK POINT IN THE SMESS DIMPARITION PACHINED SUPPLIES  A.P. D3391-0.25 AFT TUBE ASSY BY CHAPTSON IS THE WEAK POINT IN THE SMESS DIMPARITION PACHINED SUPPLIES  A.P. D3391-0.25 AFT TUBE ASSY BY CHAPTSON IS THE WEAK POINT IN THE SMESS DIMPARITION PACHINED SUPPLIES  A.P. D3491-0.25 AFT TUBE ASSY BY CHAPTSON IS THE WEAK POINT IN THE SMESS DIMPARITION PACHINED SUPPLIES  A.P. D3591-0.25 AFT TUBE ASSY BY CHAPTSON IS THE WEAK POINT IN THE SMESS DIMPARITION PACHINED SUPPLIES  A.P. D3591-0.25 AFT TUBE ASSY BY CHAPTSON IS THE WEAK POINT IN THE SMESS DIMPARITION PACHINED SUPPLIES  A.P. D3591-0.25 AFT TUBE ASSY BY CHAPTSON IS THE WEAK POINT IN THE SMESS DIMPARITION PACHINED SUPPLIES  A.P. D3591-0.25 AFT TUBE ASSY BY CHAPTSON IS THE WEAK POINT IN THE SMESS DIMPARITION PACHINED SUPPLIES  A.P. D3591-0.25 AFT TUBE ASSY BY CHAPTSON IS THE WEAK POINT IN THE SMESS DIMPARITION PACHINED A.P. D3591-0.25 AFT TUBE ASSY BY CHAPTSON IS THE WEAK POINT IN THE SMESS DIMPARITION PACHINED A.P. D3591-0.25 AFT TUBE ASSY BY CHAPTSON IS THE WEAK POINT IN THE SMESS DIMPARITION PACHINED A.P. D3591-0.25 AFT TUBE ASSY BY CHAPTSON IS THE WEAK POINT IN THE SMESS DIMPARITION PACHINED A.P. D3591-0.25 AFT TUBE ASSY BY CHAPTSON IS THE WEAK POINT IN THE SMESS DIMPARITION PACHINED A.P. D3591-0.25 AFT TUBE ASSY BY CHAPTSON IS THE WEAK POINT IN THE SMESS DIMPARITION PACHINED A.P. D3591-0.25 AFT TUBE ASSY BY CHAPTSON IS THE WEAK PAC	5
FAULT CATEGORY	
Landing Gear General	
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Turning Sequence	,

### Work Order ID 114535

March-10-14 8:25:38 AM

Required Date: 3/24/14

\*114535\*

Item ID:

D3391-025

Accept

\*N900040100\*

Setup Start

\*NS2\*

**Revision ID:** 

Item Name:

**Start Date:** 

Aft Tube Assembly

3/10/14

Start Qty: 1.00 Req'd Qty: 1.00

**Cust Item ID:** 

**Customer:** 

Reference:

Approvals:

**Process Plan:** 

Date:

Tooling:

Date:

Stop

OC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/ **Work Center ID**  Operation Description

Skidtubes

Set Up/ **Run Hours**  Tool ID

Tool # Plan Code

**Qty** 

Reject Accept Qty

Run

Reject Number

Insp. Stamp

180

\*120\* Skidtubes

Skidtubes

Memo

0.00

1-Open Aft cap pilot hole to .208" as per Dwg D3391

2-Drill float bag holes using DT8809 as per Dwg D3391(Holes marked "A" Only

3-Drill wearplate holes as per Dwg D3391 using DT8878(Mid Tube) & DT8217 Wearplate Jig .

\*\*\*\*\*Do Not Open To Finished Size\*\*\*\*

4-Drill Wearshoe holes as per DWG D3391 using DT8939 locating from 2 previously drilled aft wearplate holes.

5-Open wearplate holes to 0.297" and c'bore as per dwg D3391

6-Open up all float bag holes to 0.328" and c'sink as per Dwg D3391.

7-Deburr

8- Scribe batch # on fwd end

14-11-17

The Manual Confession of Section 1

		_ Date:			-							<u> </u>	
					WORK ORDER NON-	-CC	ONFO	RMANCE / UPDATE					AEROSPACE
		Date:							W	ork Order up	date only		<del></del>
					DISPOSITION			AGA	INST DE	PARTMENT	/PROCESS		
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				Desc	ription of work order update		nitial	Action	-	Sign &			
	Date	Step	Qty		or non-conformance	Ch	ief Eng	Description		Date	Verification	0	QC Inspector
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	Wave/Twist in Tube Fit/Function						1						
	ng (	Date  Date  Date  Gear  Bending  Centre No  Cracks  Crimp/Kin  Cuffs  Crushing  Heat Trea  Inspectio  Marks/Ch  Turning S	Date:  Pr:  No.  Date Step  Date Step	Date:  Da	Date:  Date:  Date:  Documents:  Date:  Documents:  Description:  Descri	Date:    Disposition   Rework   Scrap   Use-as-is   Suspected Unapproved   Step   Qty   Description of work order update   or non-conformance   Date   Step   Qty   Description of work order update   or non-conformance   Date   Step   Qty   Description of work order update   or non-conformance   Date   Step   Qty   Description of work order update   or non-conformance   Date   D	WORK ORDER NON-CO	WORK ORDER NON-CONFOL  Date:  DISPOSITION Rework Scrap Use-as-is Suspected Unapproved  Date Step Qty Description of work order update or non-conformance  FAULT CAT  General Bending Centre Not Concentric Cracks Crimp/Kink/Ripple/Wave Crimp/Kink/Ripple/Wave Crimp/Kink/Ripple/Wave Cuffs Crushing Heat Treat Inspection Strip in Tube Marks/Chatter Turning Sequence  Miscalig Drill Holes Finish  DISPOSITION  Rework Scrap Use-as-is Suspected Unapproved Initial Chief Eng  FAULT CAT  FAULT CAT  Therm Sequence  FAULT CAT  Therm Scrap Use-as-is Suspected Unapproved  FAULT CAT  Therm Scrap Use-as-is Suspected Unapproved  Initial Chief Eng  FAULT CAT  Therm Scrap Use-as-is Suspected Unapproved  FAULT CAT  Therm Scrap Use-as-is Suspected Unapproved  Initial Chief Eng  FAULT CAT  Therm Scrap Use-as-is Suspected Unapproved  Initial Chief Eng  FAULT CAT  Therm Scrap Use-as-is Suspected Unapproved  Initial Chief Eng  FAULT CAT  Total Chief Eng  Folio/P Grain Instruct Instruct Instruct Contamination Countersink Misalig Heat Treat Inspection Strip in Tube Drawing Drawing Drawing Drawing Drawing Drawing Drawing Off-set Turning Sequence Off-set Finish	Date:    Disposition   Rework   Skid-tube   Cross   Skid-tube   Cross   Machining   Small   Composition   Composit	Date:    Disposition   Skid-tube   Small Fab   Finishing   Composite	Date:    DISPOSITION   Rework   Skid-tube   Skid-tube   Small Fab   Proposition   Prop	Date   Disposition   Disposi	Date   Date

# \*114535\*

• Work Order ID 114535

March-10-14 8:25:38 AM

WIGI CH-10-14 C	5.25.36 AM											
Item ID: Revision ID:	D3391-025			Accept	*N900	<u>)</u> 040	100	)*	Setup	Start Stop	171	S1*
tem Name: Start Date: Required Date	Aft Tube As 3/10/14 :: 3/24/14	Start Qty: 1.00 Req'd Qty: 1.00	*1* *1*		Cust Item Customer:					эсор	^N:	S2*
Reference:	Process P QC:	Plan:	Date: Date:	Tooling: SPC'(Y/N):		Date: Date:			Run	Start Stop	I <i>V</i>	R1* R2*
Sequence ID/ Work Center 1	I <b>D</b>	Operation Description		Set Up/ Run Hours	Tool ID	Tool#	Plan Code	Accept Qty	t Re Qt	ject y	Reject Number	Insp. Stamp
*190 *190* QC Quality Control		QC5- Inspect part com  Memo	pleteness to step on W/O	0.00				(				DAS 38 9-89 14-
∞ *2∩∩*		Chemical Conversion C	Coat per QSI005 4.1	0.00				1		1/)	/- // - K	= M
HandFinish Hand Finishing		Memo		0.00				,		7-7	1-11-12	YYB
210		QC7-Inspect Chemical	Conversion Coat	0.00				_				
*210* QC Quality Control		Memo		0.00			(	W	) /·	4-	11-1	8

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DQA:			Date:											TQAG"			
						WORK ORDER NON-CONFORMANCE / UPDATE											
QA Closed:			Date:							W	ork Order up	date only					
Work Orde	er.					DISPOSITION			AGAINS	T DE	PARTMENT	/PROCESS					
Work ord						Rework			Skid-tube Crosstub	e 🗀	]	Water Jet		Engineering			
Part N	No.					Scrap			Machining Small Fa	_	Pro	d. Eng. Coor.		Quality			
						Use-as-is		1	noforming Finishir	_	4	re/Packaging		Other			
NCR I	۷o.					Suspected Unapproved			Large Fab Composit	te 🗌	]	Supplier					
Root					Desc	ription of work order update	i	Initial	Action		Sign &						
Cause		Date	Step	Qty		or non-conformance	Ch	ief Eng	Description		Date	Verification	n	QC Inspector			
Design													•				
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Equip/Tooling																	
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Material																	
Operator									·								
Offset/Setup																	
Process																	
Supplier Training																	
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Landi	ng (	Gear				General					_	•					
		Bending				Bend		Folio/F	Program		Outside Dim	ensions		Pressure/Forced			
		Centre No	ot Concen	tric		BOM/Route	_	Grain			Over/Under	tolerance		Set-up			
	Cracks Broken/Damage/Defe							Hardwa	ire	L	Part Incorred			Temperature/Cure			
	Crimp/Kink/Ripple/Wave				lacksquare	Burrs		1 '	ion Incomplete/Unqualified	<u> </u>	Part Lost/Mi	ssing	-	Weld			
	Cuffs				lacksquare	Contamination	L	4	ions Incomplete/Unclear	<u> </u>	Part Moved			Wrong Stock Pulled			
		Crushing			<u> </u>	Countersink		1	ned/off center	<u> </u>	Positioned V			l			
	<b>├</b> ─- <b> </b>				Cut Too Short	_	Mislabe			Power Loss/	Surge		Other				
	Inspection Strip in Tube					Drawing		Misrea									
	$ldsymbol{ldsymbol{ldsymbol{eta}}}$	Marks/Ch			$\vdash$	Drill Holes	<u> </u>	Off-set						<u> </u>			
	<u> </u>	Turning S	-			Finish	<u> </u>	4	Calibration								
·	Wave/Twist in Tube Fit/Function							Out of S	Sequence								

### · Work Order ID 114535

March-10-14 8:25:38 AM

Quality Control

\*N900040100\* Accept Setup Start Item ID: D3391-025 **Revision ID:** Aft Tube Assembly Item Name: \*1\* Start Qty: 1.00 3/10/14 **Cust Item ID: Start Date:** Required Date: 3/24/14 Req'd Qty: 1.00 \*1\* **Customer:** Reference: Run Start **Tooling:** Date: **Process Plan:** Date: Approvals: Stop QC: SPC (Y/N): Date: Date: Reject Accept Insp. Tool ID Tool # Plan Reject Operation Sequence ID/ Set Up/ Qty Qty Code Number Stamp **Work Center ID** Description **Run Hours** 0.00 220 Skidtubes \*220\* Skidtubes Memo 1- Instal spacers as per dwg D3391 A/R Magnabond 6398 Batch: **/2** Skidtubes exp. date: 14-12-30 cure time 12hrs as per QSI0015 2- Grind crossbolts flush 3- Back drill using #9 drill 4- Touchup Magnabond 5- Deburr DAS 38 0.00 230 QC5- Inspect part completeness to step on W/O 9-89 \*230\* OC 0.00Memo 14-11-20

\*114535\*

DQA:			Date:												
					WORK ORDER NON-CONFORMANCE / UPDATE										
QA Closed:			Date:							W	ork Order up	odate only			
Work Orde	er.					DISPOSITION				AGAINST DI	EPARTMENT,	/PROCESS			
WOIK OIG	-	***				Rework	1		Skid-tube	Crosstube	7	Water Jet	$\neg$	Engineering	
Part N	No.				*	Scrap			Machining	Small Fab	Pro	d. Eng. Coor.		Quality	
	-					Use-as-is		1	noforming	Finishing	-	re/Packaging		Other	
NCR N	۷o. <u>-</u>	-				Suspected Unapproved			Large Fab	Composite		Supplier			
Root		<del></del>			Desci	ription of work order update	]	I Initial	Acti	ion	Sign &				
Cause	- 1	Date	Step	Qty		or non-conformance	1	ief Eng	Descri		Date	Verification	n	QC Inspector	
Design	П			4.7									$\neg$		
Doc/Data	П														
Equip/Tooling													ŀ		
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	${}^{-}$	Bending				Bend	<u> </u>	1	rogram		Outside Dim			Pressure/Forced	
	ш	Centre No	ot Concen	itric		BOM/Route	<u> </u>	Grain			Over/Under	ŀ		Set-up	
	-	Cracks				Broken/Damage/Defect	<u> </u>	Hardwa		<u> </u>	Part Incorred	ŀ	-	Temperature/Cure	
	Crimp/Kink/Ripple/Wave			/Wave		Burrs		1	ion Incomplete/Un		Part Lost/Mi	ssing	-	Weld	
	-	Cuffs			<u> </u>	Contamination		4	ions Incomplete/U	nclear	Part Moved	L		Wrong Stock Pulled	
	_	Crushing			_	Countersink		1	ned/off center	<u> </u>	Positioned V	· ·	_		
		Heat Trea			<u> </u>	Cut Too Short		Mislabe			Power Loss/	Surge [		Other	
		Inspection	-	Tube		Drawing		Misread	i						
		Marks/Ch				Drill Holes	<u> </u>	Off-set							
	Turning Sequence				Finish	<u></u>	1	Calibration							
	Wave/Twist in Tube			e	- 1	Fit/Function	l	Out of 9	Seauence						

## \*114535\*

Work Order ID 114535

March-10-14 8:25:38 AM

D3391-025 Item ID:

**Revision ID:** 

Item Name: Aft Tube Assembly

**Start Date:** 3/10/14 Required Date: 3/24/14

Start Qty: 1.00 Req'd Qty: 1.00

Reference:

**Process Plan:** Approvals:

QC:

Date: Date:

**Tooling:** 

Accept

SPC (Y/N):

Set Up/ **Run Hours** 

0.00

0.00

0.00

0.00

\*235\* HandFinish

235

Sequence ID/

**Work Center ID** 

Hand Finishing

Operation

Description

AND REALODINE AS PER PAR09-043

240

\*240\* Powdercoat

Powder Coating

White Gloss(Ref;4.3.5.1) per QSI005 4.3-Alum

Pressure Wash per QSI005 4.3

250

\*250\* QC

Quality Control

QC3- Inspect Part Finish

Memo

0.00

0.00

\*N900040100\*

Setup Start

**Cust Item ID:** 

**Customer:** 

Run

Tool ID

Date:

Date:

Tool # Plan Code Accept Qty

Reject Qty

Reject Number Stamp

Insp.

**8** 8 8

10/14-12-1

1x & Sel 14/12/07 9.89

DQA:			Date:											
						WORK ORDER NON-	-CC	ONFO	RMANCE / UP			-		AEROSPACE
QA Closed:			Date:							W	ork Order up	date only	$\sqcup$	
Work Ord	er.		•			DISPOSITION				AGAINST D	EPARTMENT	/PROCESS		
WOIK OIG	C1.					Rework	ı		Skid-tube	Crosstube	٦	Water Jet		Engineering
Part I	No.					Scrap			Machining	Small Fab	Pro	d. Eng. Coor.	$\exists$	Quality
					_	Use-as-is			noforming	Finishing	┥	re/Packaging		Other
NCR I	No.					Suspected Unapproved			Large Fab	Composite	]	Supplier		
											- <b>-</b>			
Root					Desci	ription of work order update		nitial	Actio		Sign &		-	
Cause		Date	Step	Qty		or non-conformance	Ch	ief Eng	Descrip	ption	Date	Verification	$\perp$	QC Inspector
Design														
Doc/Data	L	ļ											-	
Equip/Tooling	<u> </u>												l	
Handling/Pre		·												
Material	<u> </u>	ł											I	
Operator	$\vdash$	1												
Offset/Setup Process	<u> </u>	<b>.</b>												
Supplier	┝	1												
Training	$\vdash$	1												
Transport														
Unapproved														
							FAI	JLT CA	TEGORY					
Landi	ng (	Gear				General			.,		_	_		
		Bending				Bend		Folio/F	Program		Outside Dim	ensions		Pressure/Forced
		Centre No	ot Concen	ntric		BOM/Route		Grain			Over/Under	tolerance	_	Set-up
		Cracks				Broken/Damage/Defect		Hardwa	are		Part Incorred	-	$\neg$	Temperature/Cure
		Crimp/Kink/Ripple/Wave				Burrs	-		ion Incomplete/Unq		Part Lost/Mi	ssing		Weld
	<u> </u>	Cuffs				Contamination	-		tions Incomplete/Ur	nclear	Part Moved	L		Wrong Stock Pulled
	Crushing				<u> </u>	Countersink	-	_	gned/off center		Positioned V			
	Heat Treat			<u> </u>	Cut Too Short	-	Mislabe		L	Power Loss/	Surge		Other	
	Inspection Strip in Tube			Tube	<u> </u>	Drawing	-	Misread						<u>,</u>
		Marks/Ch			<u> </u>	Drill Holes	-	Off-set						
					_	Finish	-		Calibration					
	Wave/Twist in Tube					Fit/Function		Out of S	Sequence					

Page 8

#### Work Order ID 114535

March-10-14 8:25:38 AM

\*114535\*

D3391-025 Accept \*N900040100\* Setup Start Item ID: **Revision ID:** Item Name: Aft Tube Assembly **Start Date:** 3/10/14 Start Qty: 1.00 **Cust Item ID:** Req'd Qty: 1.00 \*1\* Required Date: 3/24/14 **Customer:** Reference: Run Start Tooling: Date: Approvals: **Process Plan:** Date: Stop SPC (Y/N): Date: OC: Date: Reject Accept Tool ID Tool # Plan Reject Insp. Sequence ID/ **Operation** Set Up/ Qty Number Stamp Code Qty **Work Center ID** Description **Run Hours** 0.00 260 HandFinishing \*260\* 0.00 HandFinish Memo 1-Install inserts as per Dwg D3391 Hand Finishing 2-Install Aft Cap as per Dwg D3391 A/R Sikaflex-241/-291 FU 30227Sikaflex expiry date: 15003- INSTALL WEARPLATES AS PER DWG QC5- Inspect part completeness to step on W/O 0.00 270 DAS \*270\* 0.00 QC Memo 19-12-04 Quality Control Dd12-742-043/B126413 Identify as per dwg & Stock Location: w\O 1 x of All 14/12/07 280 \*280\* Packaging 0.00 Memo Packaging

DQA:			_ Date:						_				TRACT
			_			WORK ORDER NON	-C(	ONFO	RMANCE / UF				AEROSPACE
QA Closed:			Date:								/ork Order up	date only	
Work Orde	٠,٠					DISPOSITION				AGAINST D	EPARTMENT	PROCESS	
, work or ac	•				_	Rework	1		Skid-tube	Crosstube	7	Water Jet	Engineering
Part N	lo.					Scrap			Machining	Small Fab	Pro	d. Eng. Coor.	Quality
	•	· · · <del>-</del> · · ·		······································		Use-as-is			noforming	Finishing		e/Packaging	Other
NCR N	lo.					Suspected Unapproved			Large Fab	Composite		Supplier	
	•		-									,	
Root					Desci	ription of work order update	-	Initial	Acti	on	Sign &		
Cause		Date	Step	Qty		or non-conformance	Ch	ief Eng	Descri	ption	Date	Verification	QC Inspector
Design													
Doc/Data											'		
Equip/Tooling	$ \bot $												
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Operator													
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	_	Centre No Cracks	ot Concen	itric		Broken/Damage/Defect	<u> </u>	Hardwa		-	Part Incorred	<u> </u>	Temperature/Cure
}	_		ak/Binala	/\\/\>\\		Burrs	$\vdash$	1	on Incomplete/Un	gualified	Part Lost/Mi	<u> </u>	Weld
	Cuffs Crimp/Kink/Ripple/Wave				-	Contamination		1 '	ions Incomplete/U	· -	Part Moved	331116	Wrong Stock Pulled
	Cuffs Crushing				<u> </u>	Countersink	$\vdash$	4	ned/off center	- Incical	Positioned W	L∟ /rong	Twising stock i diled
	$\overline{}$	Heat Trea	at		-	Cut Too Short	$\vdash$	Mislabe		<u> </u>	Power Loss/S	_	Other
	_	Inspection		Tube	-	Drawing	$\vdash$	Misreac		L	J. 551 2555/.		1-0.0
ļ		Marks/Ch	-		-	Drill Holes	⊢	Off-set	-				
		Turning S			-	Finish		4	Calibration		<del></del>		
	H H					Fit/Function		4	Sequence				

March-10-14 8:25:38 AM

D3391-025 Accept Item ID: \*N900040100\* Setup Start **Revision ID:** Aft Tube Assembly Item Name: Start Qty: 1.00 **Start Date:** 3/10/14 **Cust Item ID:** Req'd Qty: 1.00 Required Date: 3/24/14 **Customer:** Reference: Run **Process Plan:** Tooling: Date: Approvals: Date: QC: SPC (Y/N): Date: Date: Tool ID Reject Accept Reject Sequence ID/ Operation Tool # Plan Insp. Set Up/ Qty Qty Number Stamp Work Center ID Description Code **Run Hours** QC21- Final Inspection - Work Order Release 0.00 290 \*290\* QC 0.00 Memo

Quality Control

Hy-12-04

DQA:			_ Date: _										
						WORK ORDER NON	-C(	ONFO	RMANCE / UI				AEROSPACE
QA Closed:			Date:							V	ork Order up	odate only	
						DISPOSITION				AGAINST D	EPARTMENT,	/PROCESS	
Work Orde	er:			<del></del>		Damark	ı		المطرية امتيا	Crosstube	ר	Water Jet	Engineering
Dowt N	ما					Rework			Skid-tube Machining	Small Fab	- Pro	d. Eng. Coor.	Quality
Part N	۱U.					Scrap Use-as-is			noforming	Finishing	-	re/Packaging	Other
NCR N	J۸					Suspected Unapproved		THETH	Large Fab	Composite	1 1100/3101	Supplier	
i ven i							ı		24,86,42		_		
Root					Desc	ription of work order update		nitial	Act	ion	Sign &	<del></del>	Ĭ
Cause		Date	Step	Qty		or non-conformance	Ch	ief Eng	Descr	ription	Date	Verification	QC Inspector
Design								<del>_</del>					
Doc/Data													
Equip/Tooling													
Handling/Pre													
Material													
Operator													
Offset/Setup													
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Landi	ng (	I			_	General		1 /-		_	٦	. г	٦, ,,
		Bending			-	Bend		1	rogram	<u> </u>	Outside Dim		Pressure/Forced
		Centre No	ot Concen	tric		BOM/Route	_	Grain		-	Over/Under	<u> </u>	Set-up
		Cracks	-1./p: '	/s.c.	<u> </u>	Broken/Damage/Defect	<u> </u>	Hardwa			Part Incorred		Temperature/Cure
	Crimp/Kink/Ripple/Wave					Burrs	$\vdash$	<b>f</b>	on Incomplete/Un	·	Part Lost/Mi	ssing	Weld
	Crushing					Countarink		ŧ	ions Incomplete/U	nciear	Part Moved Positioned V	/rong	Wrong Stock Pulled
]		Crushing	<b>\</b> +		<b>├</b>	Countersink Cut Too Short		Mislabe	ned/off center		Power Loss/		Other
		Heat Trea		Tubo	$\vdash$	Drawing	_	Misread		L	Trower rossy.	Juige _	Totilei
		Marks/Ch	•	iune	<u> </u>	Drill Holes		Off-set	A				
		Turning S			-	Finish	_	1	Calibration				
		Wave/Tw	-	e	-	Fit/Function	⊢	ł	Sequence				
1	L	1 ,		-		1		1					

March-10-14 8:25:43 AM

Work Order ID: 114535

D3391-025

Parent Item Name: Aft Tube Assembly

\*114535\* \*D3391-025\*

**Start Date: 3/10/14** 

Required Date: 3/24/14

Start Qty: 1.00

Required Qty: 1.00

Comments:

Parent Item:

ECN773 dwg rev. D EC IPP Rev B 06-02-07

IPP Rev:C 06-03-28

Update Manuf. Instructions JLM

IPP rev D 07.03.20

revF dwg rev G dwg ecn 1053p EC verified by: DD

EC

IPP rev E 07.11.07 IPP Rev:F 07-11-13

ECN 1056

DD verified by: EC

IPP Rev:G 08-09-10 revH as per dwg DD verified by:EC IPP Rev:H

11.11.14 AS PER REV.I DD verified by:JLM

	I.II.I4 ASTERN	LV.I DD VOIIIO	u oy.st.	141									
Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on e Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D4095-047		Manufactured	No			260	Each	18.0000	1	1		ſ	•
*D4095-04 Wearpad Assembly	17*								**		Jel	ulido	7
				<b>Location</b>		Loc	Oty	Loc Code					
				FP001			18 (3)	120523	_	У (			
					102241		2						
					108289		16		_				
D4095-049		Manufactured	No			260	Each	13.0000	1	1			
*D4095-04 Wearpad Assembly	19*								**		Ill	14/12	102
				<b>Location</b>		Loc	<u>Qty</u>	Loc Code					
				FP001			12				_		
					109670		12	131204	95 _	X\_			
				FP002			1						
					102216		1					*	
D6014-090		Manufactured	No			100	Each	69.0000	1	1			
*D6014-09 ALUMINUM EXTRUSION									**				
				Location		Loc	Qty	Loc Code					

Location	Loc Qty	Loc Code
LG003	69	
79742	17	
ر 86063	52	

DQA:			_ Date:										TRAGC"
			D-4			WORK ORDER NON	-CC	ONFO	RMANCE / UP		lauk Oudan	data anti. T	AEROSPACE
QA Closed:			Date:					·		VV	ork Order up	date only	<u> </u>
Work Orde	er:					DISPOSITION				AGAINST DI	PARTMENT,	/PROCESS	
	_					Rework			Skid-tube	Crosstube	7	Water Jet	Engineering
Part N	lo.					Scrap			Machining	Small Fab	Pro	d. Eng. Coor.	Quality
	_					Use-as-is			noforming	Finishing	Rec/Stoi	e/Packaging	Other
NCR N	۱o					Suspected Unapproved			Large Fab	Composite		Supplier	
Root					Desci	ription of work order update		Initial	Actio		Sign &		
Cause	_	Date	Step	Qty		or non-conformance	Ch	ief Eng	Descrip	otion	Date	Verification	QC Inspector
Design	_						İ						
Doc/Data	_										•		
Equip/Tooling	$\Box$		,										
Handling/Pre	_												
Material												<del>.</del>	·
Operator	$\dashv$											,	
Offset/Setup													,
Process	_												
Supplier	_								1				
Training	$\dashv$						Ì						
Transport	$\dashv$												
Unapproved							EAI	III T CAT	L TEGORY	*			
Landir	20 G	02r	· · · · · · · · · · · ·			General	FA	OLI CA	IEGORI				
Landin	$\overline{}$	Bending				Bend		leolio/P	Program	Γ.,	Outside Dim	ensions [	Pressure/Forced
	-	Centre No	at Concen	ntric		BOM/Route		Grain	10614111	<u> </u>	Over/Under	ļ	Set-up
}	_	Cracks	or concen			Broken/Damage/Defect	-	Hardwa	ire		Part Incorred	<u> </u>	Temperature/Cure
		Crimp/Kir	nk/Ripple	/Wave		Burrs	_	ł	ion Incomplete/Unq	ualified -	Part Lost/Mi	<u> </u>	Weld
-1	$\overline{}$	Cuffs		, ,,,,,,		Contamination		4	ions Incomplete/Un		Part Moved		Wrong Stock Pulled
· .	_	Crushing				Countersink	_	4	ned/off center	<del></del>	Positioned V	 ∕rong	<b>_</b>
	_	Heat Trea	at			Cut Too Short		Mislabe			Power Loss/:	_	Other
	_	Inspection		Tube		Drawing		Misread		<b>L</b>	<b></b>	_	
	-	Marks/Ch	-			Drill Holes		Off-set					
	$\overline{}$	Turning S				Finish		Out of (	Calibration				
		Wave/Tw	ist in Tub	e		Fit/Function		Out of S	Sequence				

March-10-14 8:25:43 AM

Work Order ID: 114535

D3391-025

Manufactured

Manufactured

Parent Item:

Parent Item Name: Aft Tube Assembly

\*114535\* \*D3391-025\*

No

No

**Start Date: 3/10/14** 

Required Date: 3/24/14

ulizlo z

Start Qty: 1.00

\*\*

Required Qty: 1.00

D3670-4-200

\*D3670-4-200\*

Bushing

Loc Oty Location FG 10 10 87709 LG001 327 103880 60 109108 242 96240 25 270 Each

230

Each

Loc Code

337.0000

61.0000

\*\*

D2646

\*D2646\*

Aft Cap

<b>Location</b>	Loc Qty	Loc Code	
FG	4		
85848	2		
90495	. 2		
FP001	57		
103306	18	B119656	X (
107857	1	5111200	
110816	38		

DQA:			Date:										7	TRAGG
						WORK ORDER NON-	-CC	ONFO	RMANCE / UF			_		AEROSPACE
QA Closed:			Date:				-			<u> </u>	ork Order up	date only		*
Work Orde	er:					DISPOSITION				AGAINST D	EPARTMENT	/PROCESS		
	•					Rework			Skid-tube	Crosstube		Water Jet	T E	ngineering
Part N	lo.					Scrap			Machining	Small Fab	Pro	d. Eng. Coor.		Quality
	•					Use-as-is		Therr	noforming	Finishing	Rec/Sto	e/Packaging		Other
NCR N	lo.					Suspected Unapproved			Large Fab	Composite	]	Supplier		
Root					Desci	ription of work order update	Ī	Initial	Acti	on	Sign &			
Cause		Date	Step	Qty		or non-conformance	Ch	nief Eng	Descri	iption	Date	Verification		QC Inspector
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Equip/Tooling			:											
Handling/Pre	_						İ							
Material	_												1	
Operator '	_													
Offset/Setup														
Process	4													
Supplier	_												-	
Training	_													
Transport	_												Ì	
Unapproved			l		ļ			UT CAT	I					
1		`					FA	ULI CA	rEGORY					
Landir						<b>General</b> Bend		lealia/E	rogram		Outside Dim	onsions [		ssure/Forced
<b> </b>	_	Bending Centre No	at Cancan	tric	-	BOM/Route		Grain	Togram	<u> </u>	Over/Under		_	t-up
	_	Cracks	or concer	iti it	┢	Broken/Damage/Defect		Hardwa	uro.	-	Part Incorred	-	_	mperature/Cure
	-	Crimp/Kir	k/Rinnle	/Mave		Burrs		4	ion Incomplete/Un	gualified	Part Lost/Mi		⊢ We	
		Cuffs	ik, rappic,	vvavc	<u> </u>	Contamination	-	4	ions Incomplete/U		Part Moved	-	_	ong Stock Pulled
		Crushing				Countersink		4	ned/off center		Positioned V	∟ /rong		
	-	Heat Trea	ıt			Cut Too Short		Mislabe			Power Loss/S		Oth	ner
}	$\overline{}$	Inspection		Tube		Drawing	-	Misread		<u> </u>		~ L		· <u></u> -
		Marks/Ch	•			Drill Holes	<del></del>	Off-set					·	
•	_	Turning S				Finish	_	4	Calibration					
	_	Wave/Tw	•	e		Fit/Function		Out of S	Sequence					

March-10-14 8:25:43 AM

Work Order ID: 114535

Parent Item:

D3391-025

Parent Item Name: Aft Tube Assembly

\*114535\* \*D3391-025\*

**Start Date: 3/10/14** 

Required Date: 3/24/14

Start Qty: 1.00

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Required Qty: 1.00

D3672-1

Manufactured

270

Each

212

Each

1.676.000

Loc Code

2

Ill whizeoz

\*D3672-1\*

Phenolic Washer

Location Loc Qty FG 10 85222 10 ST060 1666 103845 4 112218 500 500 113581 93886 450

260

99099

1,136.000

14

ALS4-1032-130

AELS4-1032-130 Purchased

No

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Il illizoz

\*ALS4-1032-130\*

Rivnut

Location	<u>1</u>	<u>Lo</u>	c Oty	Loc Code		
ST279			1079			
	M128179		122			
	M128211		957	M128649		
st510			57	100000		<u> </u>
	M126109		57			
		270	Each	992.0000	8	8

ALS4-1032-225

AELS8-1032-225 Purchased

No

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Ill malor

\*ALS4-1032-225\*

Rivnut

Location	1	Loc Qty	<b>Loc Code</b>	
FG		30		
	M127028	30	M130574	
ST280		928		X
	M127028	10		
	M128179	918		
st555		34		
	M127092	34		

DQA:		Date:										"DART
QA Closed:		Date:			WORK ORDER NON-	-CC	ONFO	RMANCE / UPE		/ork Order up	ndate only	AEROSPACE
QA Closed.		Date.									·	
Work Orde	r:				DISPOSITION				AGAINST D	EPARTMENT,	/PROCESS	
					Rework			Skid-tube	Crosstube	7	Water Jet	Engineering
Part N	0.				Scrap		i	Machining	Small Fab	Pro	d. Eng. Coor.	Quality
		*			Use-as-is		Thern	noforming	Finishing	Rec/Sto	re/Packaging	Other
NCR N	o				Suspected Unapproved			Large Fab	Composite		Supplier	]
7		· · · · · · · · · · · · · · · · · · ·	·								·	
Root				Desci	ription of work order update		Initial	Actio		Sign &		
Cause	Date	Step	Qty		or non-conformance	Ch	ief Eng	Descrip	tion	Date	Verification	QC Inspector
Design	_										·	
Doc/Data	4											
Equip/Tooling	_							,				
Handling/Pre	4											
Material												
Operator												
Offset/Setup	$\dashv$											
Process Supplier												
Training												
Fransport								·				
Jnapproved												
		•				FAI	ULT CAT	EGORY		• •		
Landin	g Gear	· · · · · · · · · · · · · · · · · · ·			General			<u> </u>				_
, [	Bending				Bend		Folio/P	rogram		Outside Dim	ensions	Pressure/Forced
	Centre No	ot Concei	ntric		BOM/Route		Grain		<u></u>	Over/Under	tolerance	Set-up
_	Cracks				Broken/Damage/Defect		Hardwa	re		Part Incorred	ci <u> </u>	Temperature/Cure
L	Crimp/Kir	nk/Ripple	/Wave		Burrs		Inspecti	on Incomplete/Unqu	ualified	Part Lost/Mi	ssing	Weld
L	Cuffs			<u> </u>	Contamination		4	ions Incomplete/Unc	clear	Part Moved		Wrong Stock Pulled
	Crushing				Countersink		1 -	ned/off center		Positioned V		·
L	Heat Trea				Cut Too Short	L	Mislabe			Power Loss/	Surge	Other
Ļ	Inspection	•	Tube		Drawing	$ldsymbol{ldsymbol{ldsymbol{eta}}}$	Misread	i				
 	Marks/Ch				Drill Holes		Off-set					
ļ	Turning S				Finish	ldash	1	Calibration				
	Wave/Tw	ist in Tuk	Эе		Fit/Function		Out of S	Sequence				

March-10-14 8:25:43 AM

Work Order ID: 114535

Parent Item:

D3391-025

Parent Item Name: Aft Tube Assembly

\*114535\* \*D3391-025\*

**Start Date: 3/10/14** 

6

Required Date: 3/24/14

Start Qty: 1.00

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Required Qty: 1.00

Il ulaloz

AN3C4A

\*AN3C4A\*

Location	<u>!</u>	Loc	<u> Qty</u>	Loc Code		
FG			20	11 - 6 -11		
	122814		20	W130311	•	<u>Xle</u>
ST512			3			
	124221		3			
ST513			2058			
	125388		1835			
	M127410		1			
	M127832		222			
		270	Each	1.089.000	4	4

Each

270

AN3C5A

Purchased

Purchased

No

No

Each

2,081.000

Ill mholo 2

\*AN3C5A\*

Location	<u>l</u>	Le	oc Qty	Loc Code				
FG			5				_	
	122800		5		- 1		<del></del>	
ST350			1084	X11308	5/			
	M128057		1084					
		270	Each	7,672.000	10	10	101	1
				*	*		Ill	igh (rloz

NAS1149C0332R

Purchased

No

\*NAS1149C0332R\*

WASHER

Location	Loc Qty	Loc Code	
GA	1101	X 1 1 2 00 2 2 7 C	
125654	1101	M130325	X(0
st510	6571		
m126319	61	_	
m127306	2500		
m127410	3000	~/	
m127831	1010	/	

**Shop Packet Print** 

Page 4

March-10-14 8:25:43 AM

DQA:			_ Date:			•							`	
						WORK ORDER NON	I-C	ONFO	RMANCE / UP			_		AEROSPACE
QA Closed:			Date:							W	ork Order up	date only		
   Work Ord	er:					DISPOSITION				AGAINST D	EPARTMENT	/PROCESS		.2
						Rework	1		Skid-tube	Crosstube		Water Jet	$\neg$	Engineering
Part I	No.					Scrap	1		Machining	Small Fab	Pro	d. Eng. Coor.		Quality
	•					Use-as-is		Therr	noforming	Finishing	Rec/Sto	re/Packaging		Other
NCR I	۷o.					Suspected Unapproved	]		Large Fab	Composite		Supplier		
Root					Desc	I ription of work order update	Τ	I Initial	Acti	on	Sign &		7	
Cause		Date	Step	Qty		or non-conformance		nief Eng	1		Date	Verification		QC Inspector
Design													1	
Doc/Data														
Equip/Tooling														
Handling/Pre														
Material														
Operator														
Offset/Setup		:												
Process														
Supplier														
Training														•
Transport														
Unapproved							<u> </u>							
							FA	ULT CA	TEGORY					
Landi		I				General		1			<b>-</b>	Г	_	
		Bending			<u> </u>	Bend	_	4	Program	<u> </u>	Outside Dim	<b>-</b>	_	ressure/Forced
			ot Concen	ntric	<u> </u>	BOM/Route		Grain		_	Over/Under	<u>-</u>	_	et-up
	-	Cracks			$\vdash$	Broken/Damage/Defect	$\vdash$	Hardwa			Part Incorred	<del> -</del>		emperature/Cure
		Crimp/Kir	nk/Ripple,	/Wave	$\vdash$	Burrs	$\vdash$	4 ·	ion Incomplete/Un		Part Lost/Mi	ssing	_	Veld
	H	Cuffs			$\vdash$	Contamination	$\vdash$	<b>-</b> 4	tions Incomplete/U	nciear -	Part Moved	<u></u>		Vrong Stock Pulled
	Ш	Crushing			$\vdash$	Countersink	<u> </u>	1	gned/off center		Positioned V		٦,	Mile a m
	Ш	Heat Trea			$\vdash$	Cut Too Short	_	Mislabe		<u></u>	Power Loss/	Surge [	To	ther
i		Inspectio	•	Tube	<u> </u>	Drawing	_	Misread						
	_	Marks/Ch			$\vdash$	Drill Holes		Off-set			•			
	Щ	Turning S				Finish	-	₹	Calibration					
	l	Wave/Tw	ist in Tub/	e		Fit/Function	1	Out of S	Sequence					

DART AEROSPACE LTD	Work Order:	11421
Description: Float Skidtube (412)	Part Number:	D3391-3
Inspection Dwg: D3391 Rev: I		Page 1 of 1

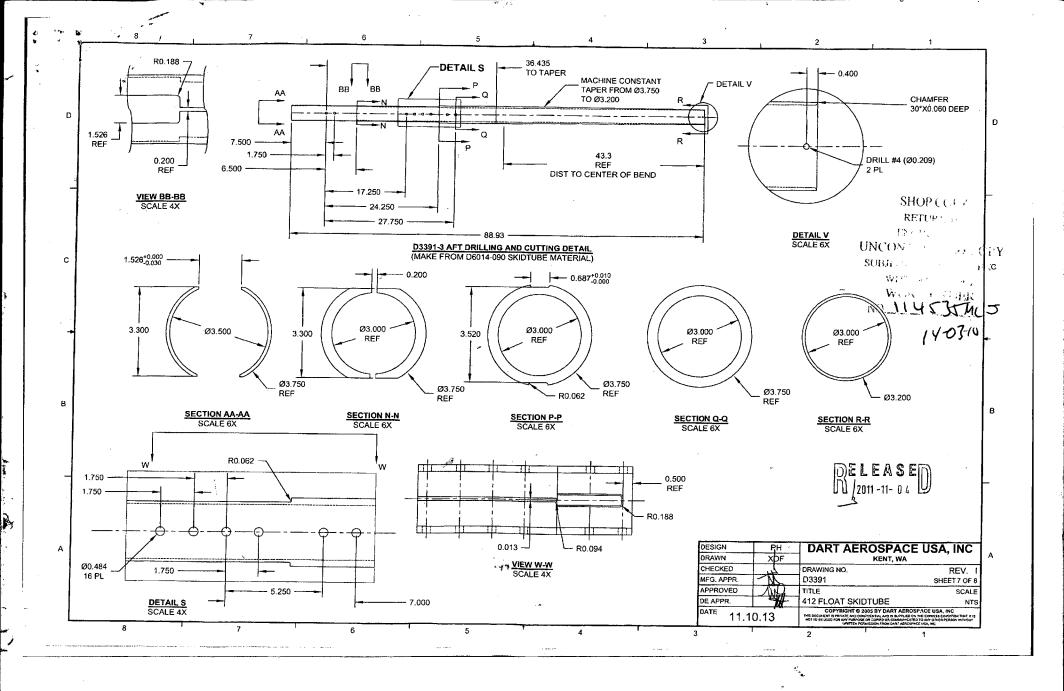
	FIRS	T ARTICLE I	NSPECTI	ON CHE	CKLIST	
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
		La	the Section	n		
14.000	+/-0.010	14.00	/		tope	16-11
3.500	+/-0.010	3.525	2		vern	CNC-08
Ø3.200	+/-0.010	3,202				
Ø3.750	+/-0.010	3.750				
30° x 0.060 chamfer	+/-0.010	30°×.06			J	`
88.93	+/-0.030	88.936			tope	LG-1)
Meas	sured by: M	m.L			Date:	14/08/19
Aud	dited by:				Date:	14-10-21
		НА	AS Sectio	n		
1.526	+0.000/-0.030	1.510			vern 4	602
7.500	+/-0.010	7,498	r		J.	
27.750	+/-0.010	27.749			HansI	
31.750	+/-0.010	31.750			1	·
35.250	+/-0.010	35,244			V	
3.300	+/-0.010	3.297			Vern C	NC 02
0.200	+/-0.010	.199			1	
3.520	+/-0.010	3.527				
0.687	+0.010/-0.000	4688				
R0.062	+/-0.010	6062				
Ø0.484	+0.005/-0.001	.484			V	
	oured by 900/	Dulatio			Date:	

Rev	Date	Change	Revised by	Approved
Α	06.04.24	New Issue P/O D3391-015/-025	KJ/JLM	
В	06.06.19	Dwg revision update	KJ/JLM	
С	07.04.20	Ø0.208 dimension removed	KJ/JLM	
D	07.09.06	0.400 dimension removed	KJ/JLM	*
E	07.11.23	Dwg Rev. updated	KJ/EC/DD	
F	09.04.27	Dimensions updated per Rev H and NCR09-028	KJ/JLM	
G	09.11.16	Dimension 0.200 removed	KJ	
. н	11.06.21	Dimension 44.995 removed	KJ	
Ī	12.05.15	Dwg Rev updated	KJ	
J	12.05.23	Dimension updated	KJ	
K	12.10.15	88.93 dimension removed	KJ 10	L
L	12.11.28	88.93 dimension added	KJ 😽	<u> </u>

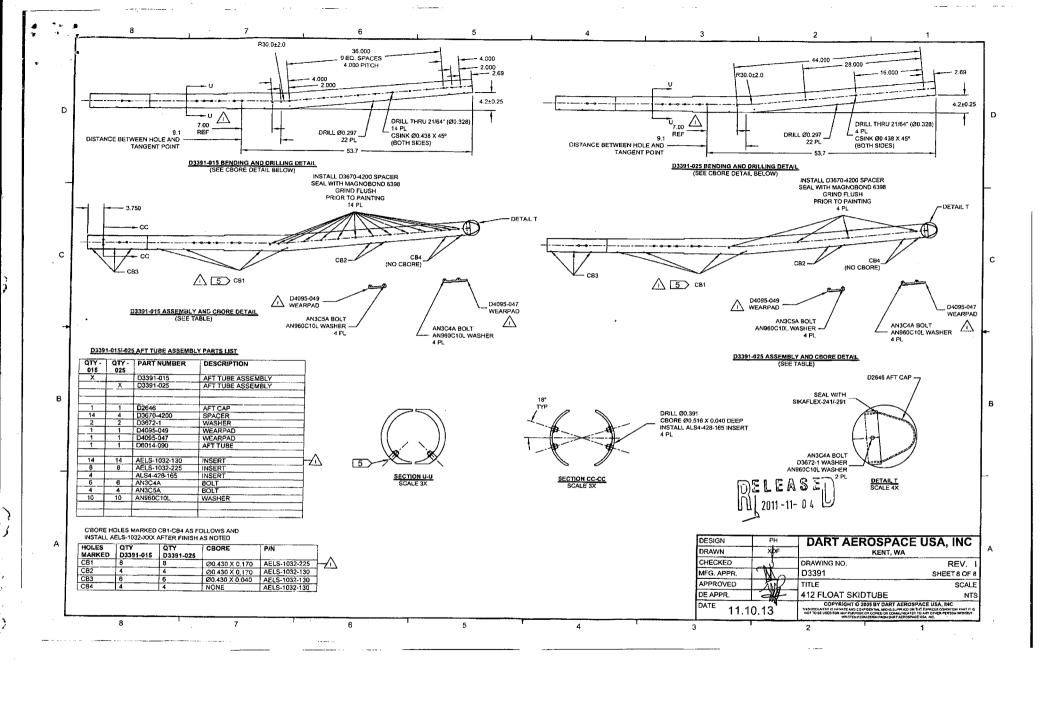
DQA:			Date:												
						<b>WORK ORDER NON-</b>	-CC	ONFO	RMANCE / UF	PDATE			AEROSPACE		
QA Closed:			Date:							V	Vork Order up	odate only			
Work Order:		DISPOSITION				2 \$6.	· •.	/PROCESS							
						Rework	ıİ		Skid-tube	Crosstube	7	Water Jet	Engineering		
Part I	No.					Scrap			Machining	Small Fab	Pro	d. Eng. Coor.	Quality		
Turcito.						Use-as-is		ł .	rmoforming Finishing		_	re/Packaging	Other		
NCR I	NCR No.				Suspected Unapproved			Large Fab	Composite		Supplier				
Root	De			"	Desc	ription of work order update		nitial	Acti	on	Sign &				
Cause		Date	Step	Qty		or non-conformance	Ch	ief Eng	Descri	ption	Date	Verification	QC Inspector		
Design			1			:									
Doc/Data						!									
Equip/Tooling						;									
Handling/Pre															
Material															
Operator				1											
Offset/Setup	Н		i di												
Process			· ·												
Supplier															
Training Transport	Н														
Unapproved	H										4				
опаррточеа			<u> </u>	<u> </u>			FAI	ULT CA	TEGORY						
Landi	ng G	Gear				General				· · ·					
	Ň	Bending				Bend		Folio/F	rogram	Γ	Outside Dim	ensions	Pressure/Forced		
		Centre No	ot Concer	ntric		BOM/Route		Grain		Γ	Over/Under	tolerance	Set-up		
		Cracks				Broken/Damage/Defect		Hardwa	ire		Part Incorrect		Temperature/Cure		
		Crimp/Kink/Ripple/Wave				Burrs		Inspect	ion Incomplete/Un	qualified	Part Lost/Mi	ssing	Weld		
		Cuffs				Contamination		Instruct	ions Incomplete/U	nclear	Part Moved		Wrong Stock Pulled		
		Crushing				Countersink		Misalig	ned/off center		Positioned V	Vrong			
		Heat Treat				Cut Too Short		Mislabe	eled		Power Loss/	Surge	Other		
		Inspectio	n Strip in	Tube		Drawing		Misread	d		<u> </u>				
		Marks/Ch	atter			Drill Holes		Off-set							
•		Turning S	equence			Finish		Out of (	Calibration						
]	Wave/Twist in Tube					Fit/Function		Out of Sequence							

<sup>■</sup> H:/FORMS/Quality Assurance\approved QA/NCRWO RevH

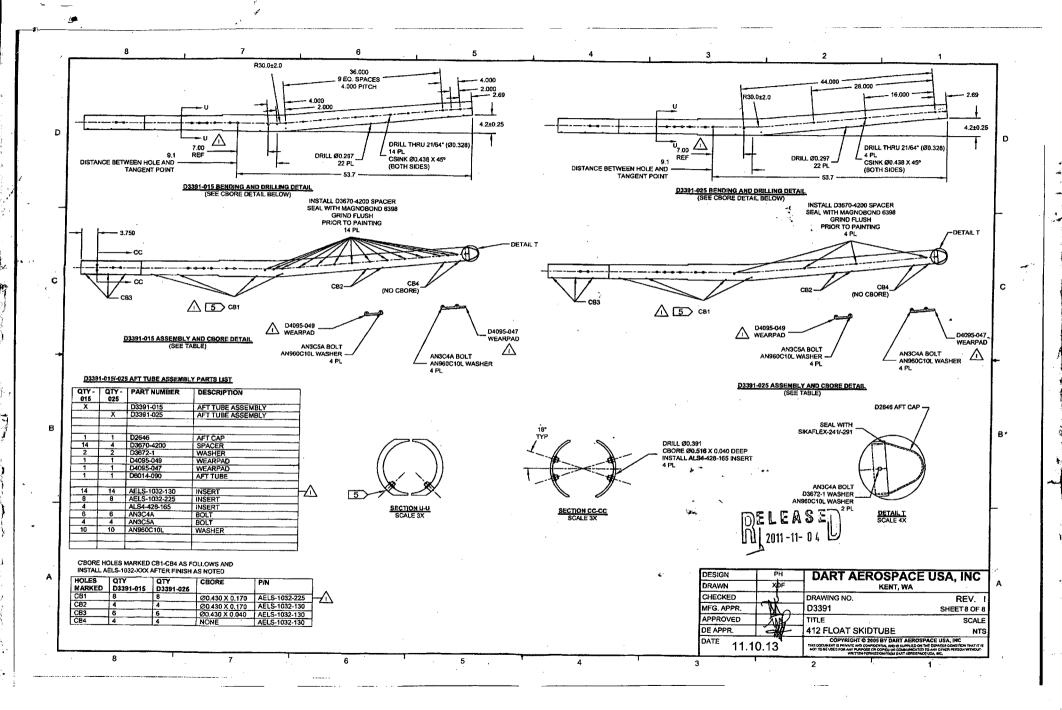
■ H:/FORMS/Quality Assurance



DQA:		Date:			WORK ORDER NON-CONFORMANCE / UPDATE									
QA Closed:		Date:			Work Order update only									
Work Order					DISPOSITION									
Work Orde	er:				D a a ut	1		Class Andrea	$\Box$				Engineering	
Dort N	ام				Rework Scrap	1		Skid-tube Machining	Crosstube Small Fab	Н	Water Jet Prod. Eng. Coor.			Quality
Part N					Use-as-is	1		~ <del></del>	Finishing	Н		<del>-</del>	_	Other
NCR No.					Suspected Unapproved		Thermoforming Finishin  Large Fab Composite			<b>├</b> ─				
Root Des					ription of work order update	Π	<u>I</u> Initial	ction		Sign &				
Cause	Date	Step	Qty		or non-conformance	Ch	nief Eng	Desc	cription		Date	Verificatio	n	QC Inspector
Design											-			
Doc/Data		İ												
Equip/Tooling					!	1								
Handling/Pre					:	l								
Material														
Operator						l								
Offset/Setup					:									
Process						l								
Supplier														
Fraining					:									
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Jnapproved														
						FA	ULT CA	TEGORY						
Landir	g Gear			_	General	_	,		,	_			_	1
	Bending			ļ	Bend	<u> </u>	Folio/F	rogram			Outside Dimensions		<u> </u>	Pressure/Forced
	Centre Not Concentric				BOM/Route		Grain	irain			Over/Under tolerance		_	Set-up
	Cracks				Broken/Damage/Defect		Hardwa	re		lacksquare	Part Incorrecí			Temperature/Cure
	Crimp/Kink/Ripple/Wave				Burrs		Inspect	ion Incomplete/U	Inqualified		Part Lost/Mi	ssing	L	Weld
	Cuffs				Contamination		Instruct	ions Incomplete/	'Unclear	Ш	Part Moved		L	Wrong Stock Pulled
Į	Crushin	_			Countersink	-	4	ned/off center		$\blacksquare$	Positioned W	_		,
1	Heat Tro	eat			Cut Too Short	L	Mislabe	eled			Power Loss/S	Surge	L	Other
	<b>─</b>	on Strip in	Tube		Drawing		Misread	d .			·			
ĺ	Marks/0	Chatter			Drill Holes		Off-set							
		Sequence			Finish		Out of 0	Calibration		_				
ĺ	Wave/T	wist in Tul	oe		Fit/Function		Out of 9	Sequence						



DQA:		Date	:												
					WORK ORDER NON-CONFORMANCE / UPDATE										
QA Closed:		Date	:		Work Order update only										
Work Order:					DISPOSITION		AGAINST DEPARTMENT/PROCESS								
Work Orde					Rework	1		Skid-tube Crosstube	Г	1	Engineering				
Part N	lo.				Scrap	1		Machining Small Fab		l Pro	Water Jet d. Eng. Coor:	Quality			
					Use-as-is	1		moforming Finishing	-	4	re/Packaging	Other			
NCR N	lo				Suspected Unapproved	1	,	Large Fab Composite	-	]	Supplier	j '□			
												1			
Root				Desc	ription of work order update		nitial	Action		Sign &		•			
Cause	Date	e Step	Qty	<u> </u>	or non-conformance	Ch	ief Eng	Description		Date	Verification	QC Inspector			
Design				<b>.</b>						٠,					
Doc/Data			'								-				
Equip/Tooling				1		ļ									
Handling/Pre			ز	]						-					
Material			, ,	}	•	į									
Operator		:													
Offset/Setup															
Process															
Supplier				١.	•										
Training															
Transport					· · · · · · · · · · · · · · · · · · ·										
Unapproved					<b>∲</b>										
						FAI	ULT,CA	TEGORY							
Landir	ng Gear				General		•					_			
	Bending				Bend		Folio/F	Program		Outside Dim	Pressure/Forced · ·				
	Centre Not Concentric				BOM/Route		Grain			Over/Under	tolerance	Set-up			
	Cracks				Broken/Damage/Defect 🔨		Hardwa	are		Part Incorred	:i	Temperature/Cure			
_	Crimp/Kink/Ripple/Wave				Burrs		Inspect	ion Incomplete/Unqualified		Part Lost/Mi	ssing	Weld			
	Cuffs				Contamination		Instruct	tions Incomplete/Unclear		Part Moved		Wrong Stock Pulled			
	Crushi	ng			Countersink		Misalig	gned/off center		Positioned V	/rong				
	Heat Treat				Cut Too Short		Mislabe	eled		Power Loss/Surge Other					
	Inspec	tion Strip in	Tube		Drawing		Misread	d							
	Marks	/Chatter			Drill Holes		Off-set								
	Turnin	g Sequence	<b>:</b>		Finish		Out of	Calibration				,			
ſ	Wave/	Twist in Tu	be		Fit/Function		Out of Sequence								



DQA:		Date:	<i>.</i>		/		22150	D			•		DART
QA Closed:		Date:		- Jun	WORK ORDER NON	I-C(	ONFO	RMANCE /	UPDATE	W	ork Order up	odate only	AEROSPACE
Work Order:			٠.		DISPOSITION	·			AGAIÎ	ST DE	PARTMENT	PROCESS,	See Asset
Part No.		#			Rework Scrap Use-as-is Suspected Unapproved			Skid-tube Machining noforming Large Fab	Small ( Finish Compos	Fab	-	Water Jet d. Eng. Coor. e/Packaging Supplier	Engineering Quality Other
Root Cause	Date	Step .	Qty:	Descr	iption of work order update or non-conformance	, -	Initial iief Eng	1 .	Action *		Sign & Date	• Verification	1 QC Inspector
Design Doc/Data Equip/Tooling Handling/Pre Material Operator Offset/Setup Process Supplier Training Transport Unapproved						FAI	ULT CA	TEGORY					
_Landing	Gear	·····	•		General		÷ .	inger,		<u> </u>		· <del>- · · · · · · · · · · · · · · · · · ·</del>	
1	Bending Centre Not Cracks Crimp/Kink Cuffs Crushing Heat Treat Inspection Marks/Cha	/Ripple/\ Strip in T tter quence	Wave ube		Contamination Countersink Cut Too short Drawing Drill Holes Finish		Grain Hardwa Inspect Instruct Misalia Mislabe Misrea Off-set	ion Incomplete tions Incomplete gned/off cent eled d	te/Unclear		Outside Dim Over/Under Part Incorred Part Lost/Mi Part Moved Positioned W Power Loss/S	tolerance ci ssing Vrong	Pressure/Forced Set-up Temperature/Cure Weld Wrong Stock Pulled Other
, the state of the	Wave/Twis	t in Tube	)		Fit/Function	2	Out of	Sequence		: '			-